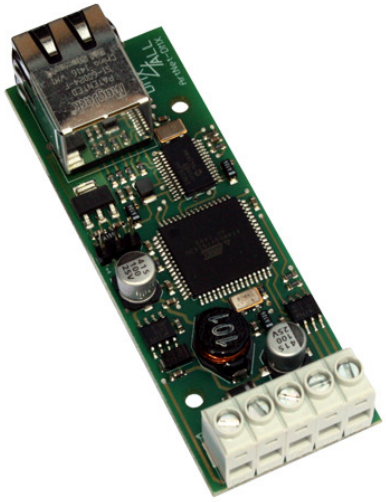
ArtNet-DMX
UNIVERSE DR 1.1

User Manual



ART NET ETHERNET

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DMX 4 ALL ®

Description

The **ArtNet-DMX UNIVERSE DR 1.1** has a switchable DMX-In/output. Together with the suitable top-hat rail housing 350 the interface is optimal applicable for switch cabinet installations.

Via a RJ45 connection occurs the connection to the ArtNet-network.

A user-friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters.

In DMX OUTPUT mode, the DMX frame rate is adjustable so that this interface is compatible with "slow" DMX devices.

An additional Extension Mode allows an output of 1024 DMX-channels on the DMX-output. The Extension Mode is optimized for controlling the MagiarLED-products.

The ArtNet-DMX UNIVERSE DR 1.1 has another communication-interface which can receive data via TCP-packages at Port 10001.

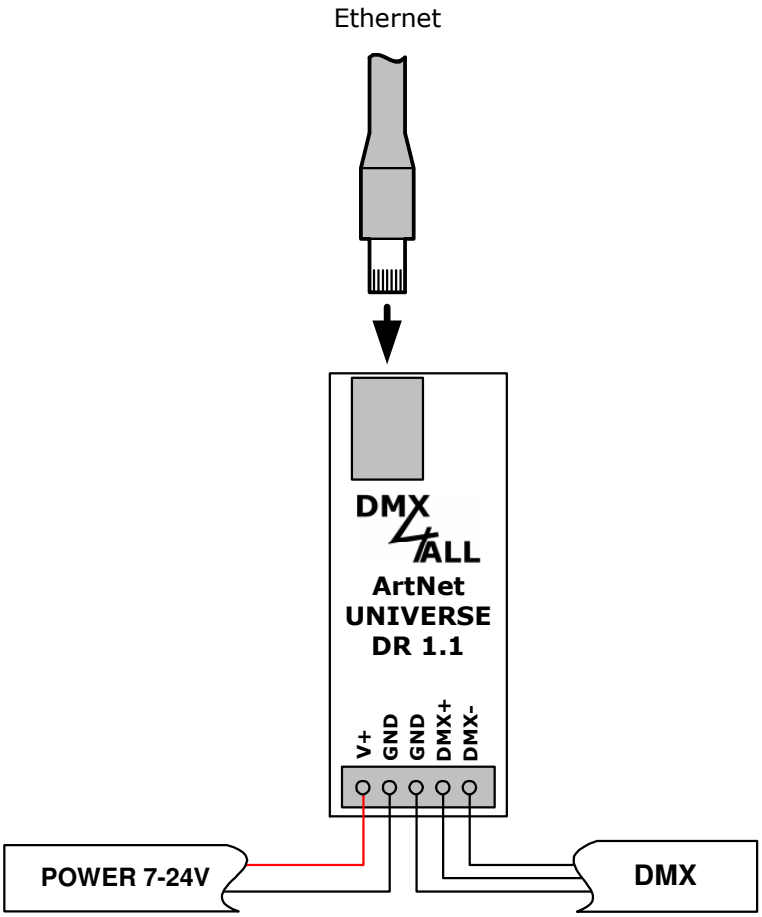
The interface uses the DMX4ALL-commands, so that the ArtNet-DMX UNIVERSE DR 1.1 is compatible to the LAN-DMX STAGE-PROFI.

In conjunction with the WLAN-bridge the ArtNet-DMX UNIVERSE DR 1.1 can also be integrated in WLAN-nets.
We recommended as WLAN-bridge: Netgear WNCE2001

Technical Data

Power supply:	7-24V / 500mA
Ethernet:	RJ45
DMX:	Selectable: - 512 channels OUT - 1024 channels OUT within the Extension Mode - 512 channels IN
Protocol:	Art-Net™ or Virtual COM Port with DMX4ALL Commands (just like LAN-DMX STAGE-PROFI)
Dimensions (LxBxH):	29,2mm x 82mm

Connection


Ethernet
DMX4ALL
ArtNet
UNIVERSE
DR 1.1
V+
GND
GND
DMX+
DMX-
POWER 7-24V
DMX

LED-Display

LED green

The green LED flashes, if no Ethernet connection exists and shines nonstop if an Ethernet connection is given.

LED yellow

The yellow LED lights up as soon as data are received.

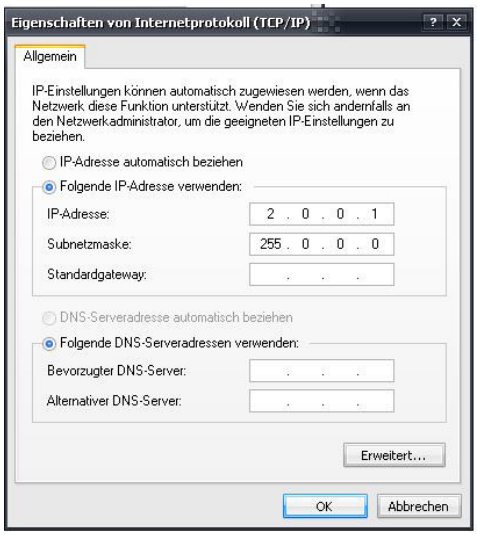
Configuration

The configuration of the **ArtNet-DMX-STAGE-PROFI 1.1** occurs about a web-interface which can be called about any web browser.

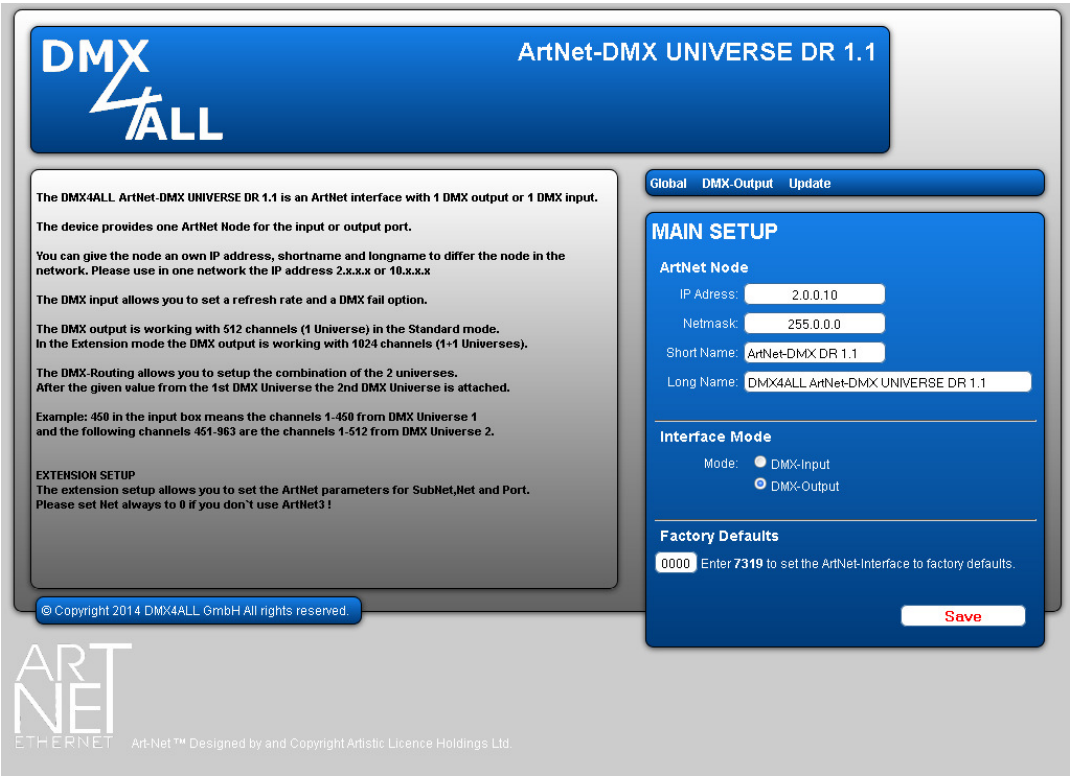
The assigned **IP-address 2.0.0.10** in the delivery status will be used for the web-interface as well as for the ArtNet.

⚠ The network settings of the PC must be configured to the **IP-address 2.0.0.1** and the **subnet mask** to **255.0.0.0**.

Please consult the ArtNet-specifications for further details.



Please call the IP 2.0.0.10 in the address bar of the web browser for getting the following configuration page:



Each node needs an own **IP-address,** so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x.

Each other IP addresses are also possible, for example 192.168.1.10. Then the Netmask must be changed to 255.255.255.0 !

For an easier identification you can assign each node with any names.

The **Short-name** is limited to 18 marks and the **Long-name** is limited to 64 marks.

The subnet mask is to leave in accordance to the ArtNet-specification 255.0.0.0 .

Please set up the **Output Settings** according to the connected LED-stripes.

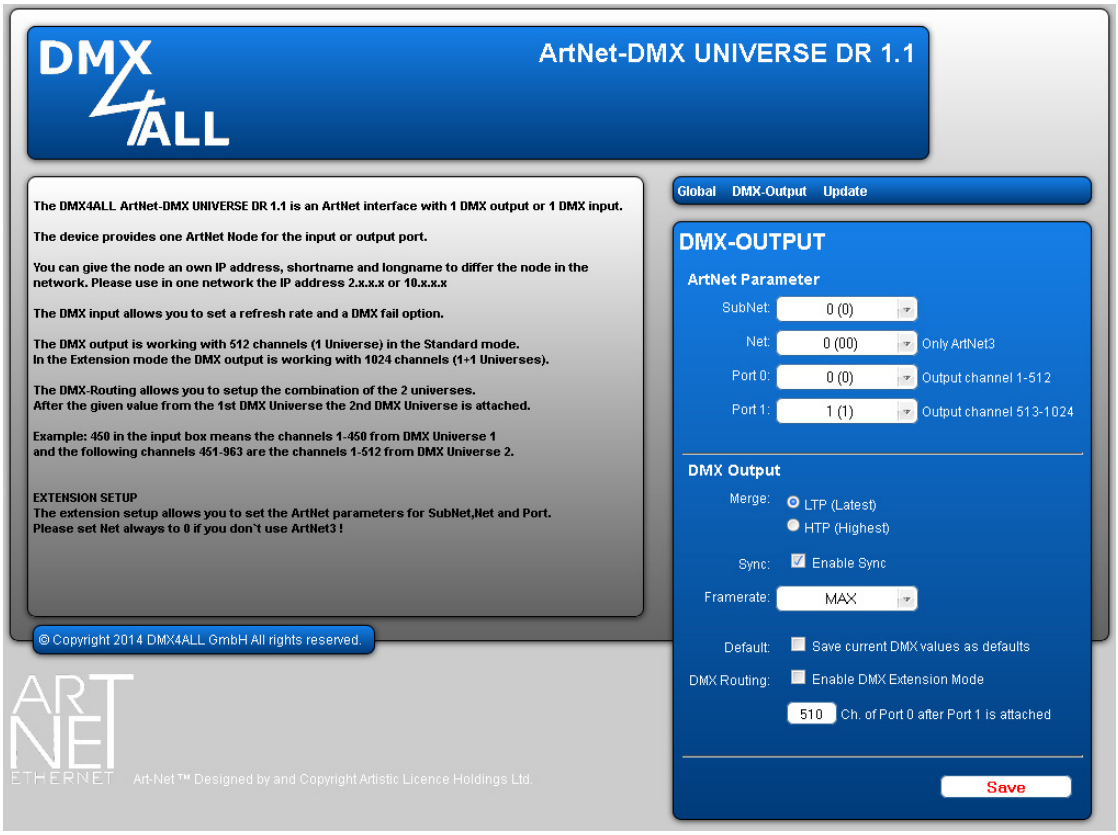
The **Factory Settings** will be rebuilt with the entry of the number 7319.

SAVE restores the configuration and respectively rebuilt the Factory Settings.

DMX-Output

For using the **ArtNet-DMX UNIVERSE DR 1.1** as a DMX-OUTPUT interface please select the Interface Mode ***DMX-Output*** in the Global-Settings.

By clicking ***DMX-Output*** you reach the following configuration-site:



The ArtNet-parameters **SubNet, Net** and **Port** must be set in the sense of the ArtNet-spezifications and show the aim for the DMX-data.

The **Merge** settings can be adjusted at LTP or HTP.

Via **Sync** the DMX-output can be synchronized for several devices by using the software MADRIX®.

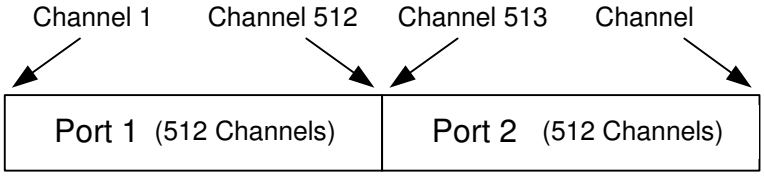
Framerate set the maximum DMX framerate in the output.
MAX ist the maximum framerate of ~44 fps (frames per second).

The option **Save current DMX values as defaults stores** the current DMX-data and restores these after turning on.

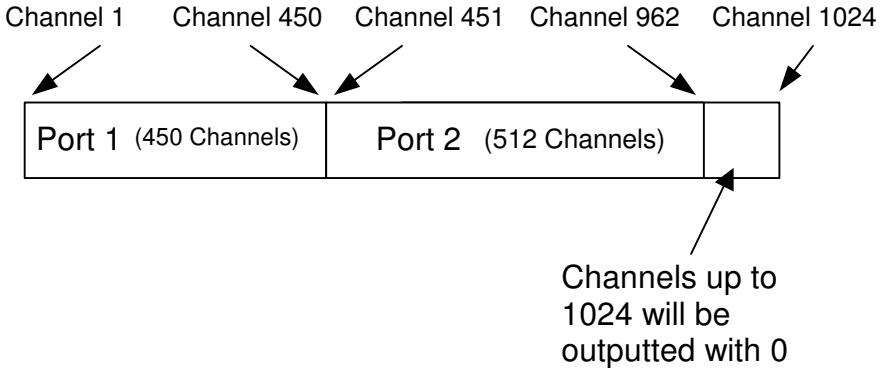
The **DMX Routing** specifies for the DMX-output how the Ports data hang together in the Extension Mode.

The entered value specifies how many DMX-channels from the first Port should be outputted. After this the DMX-channels of the second Ports are attached.

Example: DMX-Routing = 512



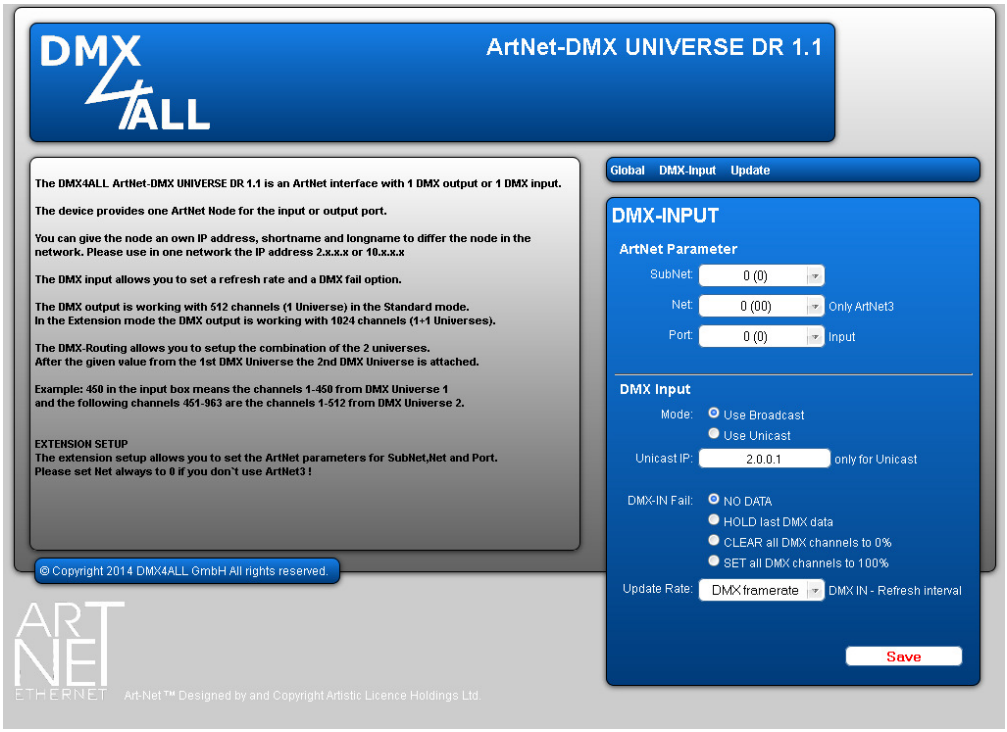
Example: DMX-Routing = 450



DMX-Input

For using the **ArtNet-DMX UNIVERSE DR 1.1** as a DMX-Input interface please select the Interface-Mode ***DMX-Input*** in the Global-settings.

By clicking ***DMX-Input*** reach the following configuration-site:



The ArtNet-parameters **SubNet, Net** and **Port** must be set in the sense of the ArtNet-spezifications and show the source for the DMX-data.

Use Broadcast: The DMX-data will be send to all devices within the ArtNet.
Use Unicast: The DMX-data will be send to a specified device with the ***Unicast IP*** within the ArtNet.

Several actions are available for the DMX-input in the case of a breakdown of the DMX-signal (**DMX FAIL**)

NO DATA	- via ArtNet will be no DMX-input received
HOLD last DMX data	- the last data will be retained
CLEAR all DMX channels to 0%	- all DMX-channels will be set to 0
SET all DMX channels to 100%	- all DMX-channels will be set to 255

The **Update-Rate** with which the DMX-input data are outputted can be switched in several times.
On change data transferred only the DMX-input data if these changes, max. however every 0,1 seconds.

DMX Framerate transferred the received DMX-values as soon as a frame has finished. So, the framerate of the incoming DMX-signal will be used for the Update-rate.

DMX4ALL-Command support

The **ArtNet-DMX UNIVERSE DR 1.1** has a further communication-interface which can receive data via TCP-packages at Port 10001. This interface uses the DMX4ALL-Commands in the way that the **ArtNet-DMX UNIVERSE DR 1.1** is compatible to the LAN-DMX STAGE-PROFI.

TCP-controlling

For controlling the interface directly via the TCP-connection please use within the web browser the adjusted IP-address and use Port 10001. The sent and received data are RAW-data packages.

Please take the possible DMX-commands from the separated DMX4ALL-Command description.

VCP-controlling

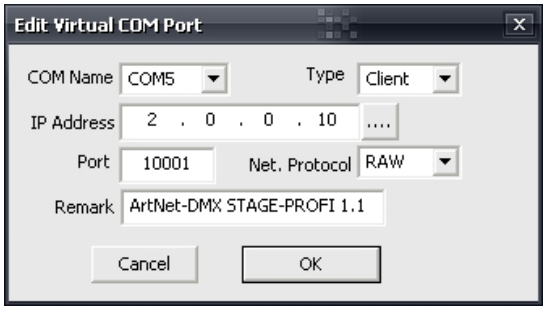
For controlling via a COM-Port a TCP-VCP-program must be installed, which provides a virtual Com Port (VCP).

We recommanded the tool *Serial to Ethernet Connection* which we have tested. You find this tool as download in our Support-area.

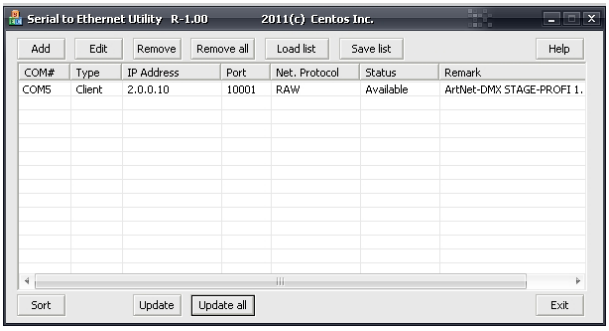
During the installation you have to enter a password (see opposite figure).

After the installation please start the tool „Centos SEC“ which you find on your desktop. Now, add a VCP with *Add* and enter the parameters for this VCP-Port as shown opposite.

Make sure, that the IP is used which is adjusted via the web browser.



Finally, click into the main window to ***Update all*** to activate the VCP. Now, the status *Available* and the COM-Port will be shown into the device manager.



Factory Reset

The **ArtNet-DMX UNIVERSE DR 1.1** interface can be set into the delivery status via the web browser.

Please proceed as follows:

- Open Global-site into the web browser
- Enter the displayed code „7319“ under *Factory Defaults*
- Click *SAVE*
- Then wait min. 10 seconds

Firmware Update

The **ArtNet-DMX UNIVERSE DR 1.1** has an update-function which allows transferring prospective Firmware versions.

Please proceed as follows:

- Open the update-site into the web browser
- Enter the displayed code „1379“ and click *Send*
- Start Update-software **DMX4ALL LAN-Updater**
- Select ArtNet-DMX UNIVERSE DR 1.1 from the list
- Click *Firmware-Update* klicken
- Select Firmware-data (.bin) and confirm
- Please wait until the update has finished
- Click *Back to Mainpage* into the web browser

Accessory

DIN rail housing 350

Power supply 12V / 20W

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

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